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Michael S. Bender

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MHKKG/Oracle (Sun)

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EXAMINER

FARROKH, HASHEM

ART UNIT

PAPER NUMBER

2187

NOTIFICATION DATE

DELIVERY MODE

06/25/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent_docketing@intprop.com

ptomhkg@gmail.com

Office Action Summary	Application No. 10/780,270	Applicant(s) BENDER ET AL.	
	Examiner HASHEM FARROKH	Art Unit 2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02/17/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The instant application is in response to communication filed on 05/10/2010.

There are a total of 21 claims pending in the application; Claims 1, 3-5, 8, 10-12, 15, and 15-19 have been amended; no claims have been added or canceled.

INFORMATION CONCERNING CLAIMS:

Claim Rejections - 35 USC § 112

1. *Claim 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1, for example, recites the limitation: "a stateless client that, during operation, communicates with said server". It appears that specification does not support the limitation as recited, for more detail see the response to the Remarks described below. The independent claims 8 and 15 recite similar limitations (e.g., intended use). It appears that specification support the initial language of claims (e.g., configured, accessible, etc.). The dependent claims 2-7, 9-14, and 16-21 are rejected because they are directly or indirectly depend from their respective independent claims.*

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Publication No. 2003/0014476 A1 to Peterson in view of U.S. Patent Pub. No. 2005/0102377 A1 to King et al. used as documentary evidence. King et al. defines that a thin client is a stateless client (e.g., see paragraph 0010 of King et al.).

2. *In regard to claim 1 Peterson teaches:*

“A system (**e.g., paragraph 0018; Figure**), comprising:”

“a server that (**e.g., paragraph 0026; server 14 in Figure**), during operation, executes an application;” (**e.g., paragraph 0019**).

“a stateless client that (**e.g., paragraph 0026; thin client computer 13 in Figure**), during operation, communicates with said server (**e.g., paragraph 14; interact**), such that during use, a user interacts with the application that executes on the server by interacting with the stateless client; and” (**e.g., paragraphs 13, 0019, and 0035**).

“a mass storage device (**e.g., hard drive 20 in Figure**) locally coupled to said stateless client (**e.g., claim 1**), wherein during operation, said mass storage device is accessed by said user via said server;” (**e.g., paragraph 0030; claim 1; fetching data**).

“wherein during operation, said server stores data to said mass storage device via said stateless client in response to said user's interaction with said application.” (**e.g., paragraph 0030; codes are load onto a hard drive**).

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3. *In regard to claims 3 and 10 Peterson further teaches:*

“wherein said mass storage device employs magnetic media, optical media, or solid-state storage media.” **(e.g., paragraphs 0025).**

4. *In regard to claim 8 Peterson teaches:*

“ A method **(e.g., paragraph 0018)**, comprising:

“a user interacting with an application that executes on a server **(e.g., server 14 in Figure)**, wherein the user interacts with the application via a stateless client **(e.g., thin client computer 13 in Figure)** that communicates with said server;” **(e.g., paragraphs 0030 and 32).**

“said user accessing a mass storage device via said server **(e.g., paragraph 0030; fetching and/or loading)**, wherein said storage device is locally coupled to said stateless client; and” **(e.g., claim 1; Hard Drive 20 in Figure).**

“said mass storage device storing data **(e.g., paragraph 30; claim 1)**, said data being received from said server via said stateless client in response to said user interacting with said application.” **(e.g., paragraph 0030; codes are loaded and/or fetched).**

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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Claims 1-3, 8-10, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,103,760 B1 to Billington et al. (hereinafter Billington).

5. *In regard to claim 1 Billington teaches:*

“A system (**e.g., Fig. 11**), comprising:”

“a server that, during operation, executes an application;” (**e.g., see column 13, lines 19-67 to column 14, lines 1-16**). *Billington teaches various uses of thin clients that use resources of a processor or a server for various applications. The applications are executed at PC or server.*

“a stateless client that (**e.g., Thin Client Device 12 in Fig. 11**), during operation, communicates with said server (**e.g., see column 5, lines 51-57; column 13, lines 19-29; Fig. 11; transmission-enabling contact**), such that during use, a user interacts with the application that executes on the server by interacting with the stateless client;” (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11**). *For example Billington teaches various application of system 10 shown in Fig. 11. The system shows that thin client 12 communicates with processor 14 comprising a server via wire/wireless lines. Some examples of the applications using thin client is web radio and TV.*

“a mass storage device locally coupled to said stateless client (**e.g., paragraph 13, line 47; Data Storage Drive 80 in Fig. 11**), wherein during operation, said mass storage device is accessed by said user via said server.” (**e.g., see column 13, lines 19-31 and lines 57-57-63; Fig. 11**). *Fig 11 shows that mass storage device 80 is locally connected*

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to the thin client 12. The server coupled to the thin client device. The mass storage device is accessible by users via processor 14 that comprises a server.

“wherein during operation, said server stores data to said mass storage device via said stateless client in response to said user's interaction with said application.” (e.g., see column 3, lines 41-50; column 13, line 64 to column 14, line 7; Fig. 11). Billington does not explicitly spell out to store the data to data storage device 80. However, it is inherently clear that the users of the thin clients use the resources provided by processor/server 14 comprising various peripheral devices including the data storage device 80. The processor 14 uses peripheral devices including the data storage device 80. Thin client enables the processor or server and peripheral devices to transmit data. The data transmission between the processor or server and the storage device comprises reading/writing data from/to peripheral device(s) comprising the data storage device.

6. *In regard to claims 2, 9, and 16 Billington further teaches:*

“wherein said storage device is locally coupled to said stateless client via a Universal Serial Bus (USB) or IEEE 1394 interface.” (e.g., see column 10, lines 17-20).

7. *In regard to claims 3, 10, and 17 Billington teaches:*

“wherein said storage device is a mass storage device employing magnetic media, optical media, or solid-state storage devices.” (e.g., see column 8, lines 37). For example the hard disk comprises is a mass storage device that employing magnetic media.

8. *In regard to claim 8 Billington teaches:*

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“A method comprising: a user interacting with an application that executes on a server,¹ wherein the user interacts with the application via a stateless client configured to communicate with said server;” **(e.g., see column 5, lines 51-57; column 13, line 19 to column 16, line 16).**

“said user accessing a mass storage device via said server **(e.g., see column 13, lines 19-31; Fig. 11)**, wherein said mass storage device is locally coupled to said stateless client.” **(e.g., Mass Storage Device 80 in Fig. 11).**

“said mass storage device storing data, said data being received from said server via said stateless client in response to said user’s interaction with said application.” **(e.g., see column 3, lines 41-50; column 13, line 64 to column 14, line 7; Fig. 11).**

9. *In regard to claim 15 Billington teaches:*

“A computer-accessible storage medium that stores program instructions, wherein the program instructions, executed by a server.” **(e.g., see column 2, line 64 to column 3, line 17; column 3, lines 17-23; column 5, lines 51-61; software at server).** *Billington teaches processor of data or tasks that are executed by the processor or server and software at server. To process data and to execute tasks and various applications taught by Billington would inherently comprise program instructions that are stored in storage device(s).*

“detect the presence of a mass storage device locally coupled to a stateless client;” **(e.g., see column 9, lines 9-13; column 10, lines 1-20).** *Billington teaches, for example, a software implementation of the “key” enabling detection of compatibility or incompatibility of the devices. The devices include mass storage.*

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“and interface said mass storage device (**e.g., Data Storage Device 80 in Fig. 11**) to an application that executes on said server;” (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11; software at server**). *Mass Storage Device 80, connected to Thin Client 12, is accessible by the by the application or software executable on the Processor or server 14.*

“wherein a user interacts with said application via said stateless client (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11; data transmission contact**), “wherein during operation, said mass storage device is accessed by said user via said server.” (**e.g., see column 5, lines 51-57; column 14, lines 8-16; Fig. 11**).

“wherein the program instructions, when executed by the server, further ~~to~~ store data to said mass storage device via said stateless client in response to said user’s interaction with said application.” (**e.g., see column 3, lines 41-50; paragraph 13, line 67 to column 14, lines 1-7; Fig. 11**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 11-12, 15 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of U.S. Patent Publication No. 2003/0014587 A1 to Bouvier et al. (hereinafter Bouvier).

10. *In regard to claim 4 Peterson teaches that a thin or stateless client computer connected to the mass storage device but does not expressly teach: “wherein during operation, the server detects a hotplugging event generated in response to disconnection of the mass storage device.”*

Bouvier teaches: “wherein during operation, the server detects a hotplugging event generated in response to disconnection of the mass storage device.” (e.g., paragraphs 0032 and 0042) for using storage detection sensor to detect the installation/removal including “hot plugged” disk drive(s).

Disclosures by Peterson and Bouvier are analogous because both references are in the same field endeavor (e.g. storage devices).

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the client/sever taught by Peterson to include the storage detection sensor for detecting installation/removal and “hot plugged” disk drive taught by Bouvier.

The motivation for using storage detection sensor as taught by paragraph 0037 of Bouvier is to provide enhanced monitoring capabilities.

Therefore, it would have been obvious to combine teaching of Bouvier with Peterson to obtain the invention as specified in the claim.

11. *In regard to claim 5 Bouvier further teaches:*

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“wherein in response to detecting the hotplugging event, the server marks resources associated with the mass storage device as deleted or stale (**e.g., paragraph 0031; bits in status register**), such that disconnection of the mass storage device is visible to the application.” (**e.g., paragraphs 0032 and 0042; notify the initiator**). *The motivation for combining is based on the same rational given for rejection of claim 4.*

12. *In regard to claim 11 Peterson teaches that storage device connected to thin client but does not expressly teach: “disconnecting the mass storage device”*

*Bouvier teaches: “disconnecting the mass storage device” (**e.g., paragraph 0032; removal of a drive**).*

13. *Claims 12 and 18-19 recite similar limitation(s) as claim 5 and are rejected on the same ground of rejection.*

14. *In regard to claim 15 Peterson teaches:*

“A computer-accessible storage medium (**e.g., Hard Drive 20 in Figure**) that stores program instructions (**e.g., paragraphs 26 and 0030; claim 1**), wherein the program instructions, when executed by a server:” (**e.g., paragraphs 19 and 0030; code are load onto a hard drive**).

“interface said mass storage device to an application that executes on said server;” (**e.g., paragraphs 19 and 0030**).

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“wherein a user interacts with said application via said stateless client, wherein during operation, said mass storage device is accessed by said user via said server; and”

(e.g., paragraph 0030; claim 1; fetching and/or loading).

“wherein the program instructions, when executed by the server, further store data to said mass storage device via said stateless client in response to said user's interaction with said application.” **(e.g., paragraphs 19 and 0030; claim 1).** *Peterson teaches that stateless or thin client directly connected to hard drive but does not expressly teach:*

“detect the presence of a mass storage device”

Bouvier teaches: “detect the presence of a mass storage device” (e.g., paragraph 0032) for using a drive presence sensor to detect installation and/or removal of a drive from the disk bay. The motivation for combining is based on the same rationale given for rejection of claim 4.

Claims 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of U.S. Patent Publication No. 2004/0064461 A1 to Pooni et al. (hereinafter Pooni).

15. *In regard to claims 6 and 13 Peterson teaches all limitations included in the base claims but does not expressly teach: “wherein said server is further configured to provide a kernel execution mode and a user execution mode, and wherein said server is further configured to execute a storage service daemon, wherein said storage service daemon executes in user execution mode.”*

Poona teaches: “wherein said server is further configured to provide a kernel execution mode and a user execution mode (e.g., see paragraph 52 in page 5), and wherein said server is further configured to execute a storage service daemon (e.g., see paragraph 52 in page 5), wherein said storage service daemon executes in user execution mode.” (E.g., see paragraph 39 in page 4) for executing storage service (e.g., SCSI subsystem) daemon in user mode.

Disclosures by Peterson and Pooni are analogous because both references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify sever/client taught by Peterson to include the kernel mode and user mode taught by Pooni.

The motivation for executing storage service daemon in user mode as taught by paragraph 33, page 3 of Pooni is a method and arrangement for dynamically detecting one or more SCSI devices on a Linux host, thus improving the method existed in prior art (see background of invention).

Therefore, it would have been obvious to combine disclosures by Pooni with Peterson to obtain the invention as specified in the claim.

Claims 7 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peterson in view of U.S. Patent Publication No. 2003/0056063 A1 to Hochmuth et al. (hereinafter Hochmuth).

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16. *In regard to claims 7 and 14 Peterson teaches all limitations included in the base claims but does not expressly teach: “wherein said storage device comprises one or more unit interfaces, wherein each unit interface comprises one or more logical units (LUNs), and wherein each logical unit comprises one or more partitions.”*

Hochmuth teaches: “wherein said storage device comprises one or more unit interfaces (e.g., paragraph 30 in pages 4 to 5), wherein each unit interface comprises one or more logical units (LUNs) (e.g., paragraph 30 in pages 4 to 5), and wherein each logical unit comprises one or more partitions.” (e.g., paragraph 14 in page 2) for partitioning the logical storage units.

Disclosures by Peterson and Hochmuth are analogous because both references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the mass storage device taught by Peterson to include the storage device with logical storage units partitioning taught by Hochmuth.

The motivation for logical storage partitioning as taught by paragraph 9, page 1 of Hochmuth is to provide a secure storage access configuration module.

Therefore, it would have been obvious to combine disclosures by Hochmuth with Peterson to obtain the invention as specified in the claim.

Claims 6, 13, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of U.S. Patent Publication No. 2004/0064461 A1 to Pooni et al. (hereinafter Pooni).

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17. *In regard to claims 6, 13, and 20 Billington teaches all limitations included in the base claims but does not expressly teach: “wherein said server is further configured to provide a kernel execution mode and a user execution mode, and wherein said server is further configured to execute a storage service daemon, wherein said storage service daemon executes in user execution mode.”*

Poona teaches: “wherein said server is further configured to provide a kernel execution mode and a user execution mode (e.g., see paragraph 52 in page 5), and wherein said server is further configured to execute a storage service daemon (e.g., see paragraph 52 in page 5), wherein said storage service daemon executes in user execution mode.” (E.g., see paragraph 39 in page 4) for executing storage service (e.g., SCSI subsystem) daemon in user mode.

Disclosures by Billington and Pooni are analogous because both references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the sever taught by Billington to include the kernel mode and user mode taught by Pooni.

The motivation for executing storage service daemon in user mode as taught by paragraph 33, page 3 of Pooni is a method and arrangement for dynamically detecting one or more SCSI devices on a Linux host, thus improving the method existed in prior art (see background of invention).

Therefore, it would have been obvious to combine disclosures by Pooni with Billington to obtain the invention as specified in the claim.

Claims 7, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Billington in view of U.S. Patent Publication No. 2003/0056063 A1 to Hochmuth et al. (hereinafter Hochmuth).

18. *In regard to claims 7, 14, and 21 Billington teaches all limitations included in the base claims but does not expressly teach: “wherein said storage device comprises one or more unit interfaces, wherein each unit interface comprises one or more logical units (LUNs), and wherein each logical unit comprises one or more partitions.”*

Hochmuth teaches: “wherein said storage device comprises one or more unit interfaces (e.g., paragraph 30 in pages 4 to 5), wherein each unit interface comprises one or more logical units (LUNs) (e.g., paragraph 30 in pages 4 to 5), and wherein each logical unit comprises one or more partitions.” (e.g., paragraph 14 in page 2) for partitioning the logical storage units.

Disclosures by Billington and Hochmuth are analogous because both references are in the same field of endeavor.

At the time of invention it would have been obvious to a person of ordinary skill in art to modify the mass storage device taught by Billington to include the storage device with logical storage units partitioning taught by Hochmuth.

The motivation for logical storage partitioning as taught by paragraph 9, page 1 of Hochmuth is to provide a secure storage access configuration module.

Therefore, it would have been obvious to combine disclosures by Hochmuth with Billington to obtain the invention as specified in the claim.

Response to Remarks

*Applicant's Remarks are fully considered but they are not persuasive. The Applicant amendment of claims and argument are in response to the decision by Board of Patent Appeal and Interferences (hereinafter Board) that modified the original decision, but still confirming the Examiner rejections. The modification of the original decision, apparently created a new ground of rejection [e.g., see Decision on Reconsideration - Granted (APD2) dated 03/10/2010). The original claims (e.g., before appeal) recites that stateless client is **configured** to provide certain functions. Board has stated that languages of claim are recitation of intended use and as such Billington anticipates the limitations recited in the independent claims 1, 8, and 15. The Applicant, although not agreeing with the Board decision, has amended the claims to overcome the rejections (e.g., see pages 7-8 of Remarks). However, Applicant has not provided information as to what portion of the specification provides support for the new amendment. For example claim 1 before the appeal recites "a stateless client configured to communicate with said server", after the appeal claim 1 has been amended the claim to recite "a stateless client that, during operation, communicates with said server. The paragraphs 0019 and 0023 of specification, respectively, in part recite: "a plurality of stateless clients 10a and 10b **configured to communicate** with a plurality of server systems 20a and 20b via a network 15." and "stateless clients 10 may be **configured to communicate** with servers 20 via network 15." It appears that*

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specification support the language of original claims but not the newly amended versions. Applicant further states:

“Applicants note that for the reasons previously set forth during the appeal, Billington does not actually disclose the functional aspects noted above. That is, Billington does not disclose **a server, stateless client, and mass storage device arranged as recited in claim 1, where these elements operate to implement the particular pattern of mass storage device access that is recited in claim 1** under the conditions recited in claim 1

As amended, claim 1 positively recites numerous features as actually being performed. Correspondingly, **according to the Board's logic in its Decision on Request for Rehearing, these features are not merely statements of intended use**, but affirmative limitations on the configuration of the recited structure. As such, the ordinary requirements of anticipation apply. That is, “the prior art reference--in order to anticipate under 35 U.S.C. § 102--must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'” *NetMoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008).

Thus, the question is not whether Billington might somehow be capable of fulfilling some intended use included in claim 1. Rather, to anticipate, Billington must actually disclose, **either explicitly or inherently**, all of the features of claim 1 arranged in the manner recited. As noted above, Billington plainly does not disclose that a user accesses a locally-coupled storage device by interacting with an application executing on a server, much less that data is stored in the server to the mass storage device via the stateless client in response to the user's interaction with the application.

Applicants submit that for at least these reasons, Billington fails to anticipate amended claim 1. Similar arguments apply to independent claims 8 and 15, which recite features similar to those of claim 1. Moreover, Applicants submit that the remaining cited references fail to remedy Billington's omissions. Accordingly, Applicants submit that the rejections of independent claims 1, 8, and 15 are unsupported.” (*Pages of Remarks, emphasis added*).

Billington teaches:

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“Moreover, in a further detailed aspect of the invention, a hard-wire or wireless **thin client network** is facilitated by **use of a peripheral concurrency device in data transmission-enabling contact with the processor**; and which, **when combined with hardware/software at the server**, such as a PCI card, **facilitates concurrent use of the resources of one powerful PC by multiple users at thin clients.**”
(Column 5, lines 50-57 of Billington; emphasis added).

“Turning to FIG. 11, in one embodiment the invention is helpful in configuring the system 10 in implementation of a hard-wired or wireless network where the peripheral 12 can comprise **a thin client device** connectable to user interface devices, for example a monitor 74, keyboard 76, mouse 78, and to a **data storage drive 80 such as a floppy, zip drive, CD-RW, etc.** Power and **data connections** to a wireless communication device 82 or 84 enable connection to **a processor 14 comprising a PC or server** likewise equipped with a wireless communication device, or directly to the Internet or another network 21. **The processor** is connected to other **thin clients** via wireless or wired connections, and can be connected to a further network 21.” (Column 13, lines 19-31 of Billington; emphasis added).

“As an examples of possible combinations in such a system 87 at a first user location 96 the **thin client device 92** is bundled with one or more bays 100 with power and data ports to enable various additional devices 36 to be connected, including **CD, DVD, or other drives**, a USB or Firewire hub to connect cameras, audio players, game consoles, or further computing devices, etc. as described above, a monitor 102 which can be a television, a digital video recording device 104 such as a TiVo device, or an internet device such as Web TV, and a hardwired or wireless keyboard console 106 which itself can comprise bays for further devices, add-on modules, or simply incorporate them, for example a USB Hub 108, and **a DVD-R/RW or CD-R/RW drive 110**. Other devices such as a joystick or pointer 107 can be incorporated in the system at this user location, and, as will be appreciated, this location supports entertainment, gaming, web browsing, etc. and further digital audio, gaming, and other entertainment enhancing devices are natural potential add-ons. As will be appreciated, the location also supports more conventional computing functions as well, and the resources of the network 87 are made available here.” (Column 14, lines 41-62 of Billington; emphasis added).

“It will be appreciated that the **leveraging of connectivity** enabled by this embodiment can be very useful. For example, an image capture device such as a digital video camera, a further **mass storage device** (not shown), and two or more additional devices (depending on how many ports are incorporated in the hub) can be connected simultaneously. In this example, **digital video data can be transferred to the processor, to the connected mass storage device**, to the printer to print out a still image, etc. The connection can to the printer and mass storage can be via the

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processor or peer-to-peer, depending on the particulars of the devices connected.”
(Column 11, lines 28-39 of Billington; *emphasis added*).

Billington teaches the thin client or stateless devices, which provides connectivity and interface to various peripheral devices including mass storage devices. The thin client enables a user to use all hardware/software component facilitated by the computer or server. The resources include mass storage devices and use of mass storage device inherently provides storing data to and reading data from it. In addition, transferring data to the mass storage device is the same as storing the data to the mass storage device as recited in the claim.

In summary, the Examiner believes that Billington directly or inherently anticipates all the limitations recited in the independent claims 1, 8, and 15. In regard to rejections of dependent claims, the Applicant does make any specific arguments except that since Billington does not teach or support all limitations or features of the independent claims, at least for that reason the rejection of the dependent claims are unsupported. The dependent claims 4 and 5 have been amended to include new limitations.

In addition, disclosures by Peterson and/or Bouvier are used for rejections of claims 1, 3-5, 8, 10-12, 15, and 18-19 which more directly teach the limitations in the newly amended claim.

In summary, the Examiner believes that Billington or Peterson and Bouvier inherently/directly teach all limitations recited in claims 1, 8, and 15 set forth in this office action. Accordingly, the Examiner maintains his position

Conclusion

*Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).*

*A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HASHEM FARROKH whose telephone number is (571)272-4193. The examiner can normally be reached on 8-5.*

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on (571)272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2187

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*/Hashem Farrokh/
Examiner, Art Unit 2187*